

**+UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA**

In re: BAIR HUGGER FORCED AIR
WARMING DEVICES PRODUCTS
LIABILITY LITIGATION

MDL No. 15-2666 (JNE/FLN)

This Document Relates To:
All Actions

**CORRECTED DECLARATION OF
PETER J. GOSS IN SUPPORT OF
DEFENDANTS' MOTION TO
EXCLUDE THE OPINIONS AND
TESTIMONY OF PLAINTIFFS'
ENGINEERING EXPERTS DANIEL
KOENIGSHOFER, MICHAEL BUCK,
SAID ELGHOBASHI AND YADIN
DAVID**

Peter J. Goss, being first duly sworn, deposes and declares:

I am an attorney at the law firm of Blackwell Burke P.A., and one of the attorneys representing 3M Company and Arizant Healthcare Inc. (together, "Defendants") in this litigation. I submit this declaration in support of Defendants' Motion to Exclude the Opinions and Testimony of Plaintiffs' Engineering Experts Daniel Koenigshofer, Michael Buck, Said Elghobashi, and Yadin David. Unless otherwise stated, the facts set forth herein are based upon my personal knowledge, information, and belief.

1. Attached as Defendants' Exhibit 1 is a true and correct copy of Albrecht M, et al., "Forced-air warming: a source of airborne contamination in the operating room?" *Orthopedic Reviews* 1.2 (2009).

2. Attached as Defendants' Exhibit 2 is a true and correct copy of Albrecht M., et al., "Forced-air warming blowers: An evaluation of filtration adequacy and

airborne contamination emissions in the operating room," 39 *Am. J. of Infection Control* 321 (2011).

3. Attached as Defendants' Exhibit 3 is a true and correct copy of Reed M., et al. "Forced air warming design: evaluation of intake filtration, internal microbial buildup, and airborne-contamination emissions," 81 *AANA J.* 275 (2013).

4. Attached as Defendants' Exhibit 4 is a true and correct copy of Exhibit 2 from the deposition of Scott Augustine ("Blowing Air Is Risky" brochure).

5. Attached as Defendants' Exhibit 5 is a true and correct copy of Beavers S., "Acinetobacter Infections among Hospitalized Patients in Kentucky-2006" 42 *Kentucky Epidemiologic Notes & Reports* (2007), identified as 3MBH00000932.

6. Attached as Defendants' Exhibit 6 is a true and correct copy of a letter from Dr. Suzanne Beavers to Albert Van Duren dated November 13, 2007, identified as 3MBH00007909.

7. Attached as Defendants' Exhibit 7 is a true and correct copy of an email from Mark Albrecht to Mike Reed, dated July 9, 2010, identified as Nachtsheim_0000838.

8. Attached as Defendants' Exhibit 8 is a true and correct copy of excerpts from the deposition of Mark Albrecht.

9. Attached as Defendants' Exhibit 9 is a true and correct copy of an email from Mark Albrecht to Mark Litchy, dated June 10, 2010, identified as Litchy_0000705.

10. Attached as Defendants' Exhibit 10 is a true and correct copy of an email from Mark Albrecht to Scott Augustine, dated May 25, 2010, identified as Nachtsheim_0000118.

11. Attached as Defendants' Exhibit 11 is a true and correct copy of Exhibit 8 from the deposition of Scott Augustine, research report dated April 4, 2008.

12. Attached as Defendants' Exhibit 12 is a true and correct copy of 3MBH00047482.

13. Attached as Defendants' Exhibit 13 are true and correct copies of Exhibits 39, 46, 47, 48 and 49 from the deposition of Scott Augustine.

14. Attached as Defendants' Exhibit 14 is a true and correct copy of correspondence to Drs. Daniel Sessler and Kumar Belani, dated October 2, 2009 and October 5, 2009, identified as AUGUSTINE_0020049 and AUGUSTINE_0035140.

15. Attached as Defendants' Exhibit 15 is a true and correct copy of excerpts from the deposition of Dr. Michael R. Reed.

16. Attached as Defendants' Exhibit 16 is a true and correct copy of an extract from McGovern Deposition Exhibit 10A, pages 3615–26.

17. Attached as Defendants' Exhibit 17 is a true and correct copy of excerpts from the deposition of Dr. Paul McGovern.

18. Attached as Defendants' Exhibit 18 is a true and correct copy of McGovern P., et al., "Forced-air warming and ultra-clean ventilation do not mix," 93 *Journal of Bone & Joint Surgery* 1537 (2011).

19. Attached as Defendants' Exhibit 19 is a true and correct copy of Exhibit 60 from the deposition of Scott Augustine, email from Dr. Mike Reed to Mark Albrecht, dated July 18, 2010.

20. Attached as Defendants' Exhibit 20 is a true and correct copy of an email from Mark Albrecht to Dr. Mike Reed, dated August 20, 2010, identified as Natchsheim_0000481.

21. Attached as Defendants' Exhibit 21 is a true and correct copy of "Forced Air Warming versus Conductive Fabric Warming- An Evaluation of Laminar Operating Room Ventilation Disruption," identified as AUGUSTINE_0006980.

22. Attached as Defendants' Exhibit 22 a true and correct copy of excerpts from the deposition of Dr. Andrew Legg.

23. Attached as Defendants' Exhibit 23 is a true and correct copy of Legg A., et al., "Do forced-air patient-warming devices disrupt unidirectional downward airflow?" 94 *J. of Bone & Surgery* 254 (2012).

24. Attached as Defendants' Exhibit 24 is a true and correct copy of Legg A., et al., "Forced-air patient warming blankets disrupt unidirectional airflow" 95 *Bone & Joint J.* 407 (2013).

25. Attached as Defendants' Exhibit 25 is a true and correct copy of an excerpt from McGovern Deposition Exhibit 1A, pages 445–452.

26. Attached as Defendants' Exhibit 26 is a true and correct copy of excerpts from the deposition of Dr. Kumar Belani.

27. Attached as Defendants' Exhibit 27 is a true and correct copy of Exhibit 11 from the deposition of Dr. Kumar Belani, contract for study "Evaluation of Patient Warming Excess Heat on Ventilation, dated January 3, 2011.

28. Attached as Defendants' Exhibit 28 is a true and correct copy of Belani K., et al., "Patient Warming Excess Heat: The Effects on Orthopedic Operating Room Ventilation Performance," 117 *Anesthesia & Analgesia* 406 (2013).

29. Attached as Defendants' Exhibit 29 is a true and correct copy of Dasari, K., et al., "Effect of forced air warming on the performance of operating theatre laminar flow ventilation," 67 *Anaesthesia* 244 (2012).

30. Attached as Defendants' Exhibit 30 is a true and correct copy of an email from Mark Albrecht to Dr. Mark Harper, dated November 9, 2010, identified as Harper_0000106.

31. Attached as Defendants' Exhibit 31 is a true and correct copy of Exhibit 16 from the deposition of Dr. Robert Gauthier, an email from Mark Albrecht to Mark Litchy dated June 14, 2010.

32. Attached as Defendants' Exhibit 32 is a true and correct copy of Exhibit 20 from the deposition of Dr. Robert Gauthier, an email from Dr. Oliver Kimberger to Mark Albrecht dated January 27, 2011.

33. Attached as Defendants' Exhibit 33 is a true and correct copy of Exhibit 22 from the deposition of Dr. Robert Gauthier, an email from Mark Albrecht to Dr. Oliver Kimberger dated March 4, 2011.

34. Attached as Defendants' Exhibit 34 is a true and correct copy of Exhibit 23 from the deposition of Dr. Robert Gauthier, an email from Mark Albrecht to Mike Reed dated April 22, 2011.

35. Attached as Defendants' Exhibit 35 is a true and correct copy of Dan Koenigshofer's Expert Report.

36. Attached as Defendants' Exhibit 36 is a true and correct copy of Dr. Said Elghobashi's Expert Report.

37. Attached as Defendants' Exhibit 37 is a true and correct copy of Michael W. Buck's Expert Report.

38. Attached as Defendants' Exhibit 38 is a true and correct copy of Duke Infection Control Outreach Network (DICON), "HotDogs, Bair Huggers, and Lawsuits, Oh My! A brief review of the controversy surrounding perioperative warming methods," 10 *Infection Prevention News* (2015).

39. Attached as Defendants' Exhibit 39 is a true and correct copy of excerpts from the deposition of Daniel Koenigshofer.

40. Attached as Defendants' Exhibit 40 is a true and correct copy of Andersson A., et al., "Traffic flow in the operating room: An explorative and descriptive study on air quality during orthopedic trauma implant surgery" 40 *Am. J. of Infection Control* 750 (2012).

41. Attached as Defendants' Exhibit 41 is a true and correct copy of Exhibit 51 from the deposition of Scott Augustine.

42. Attached as Defendants' Exhibit 42 is a true and correct copy of Toksvig-Larsen S., et al., "Temperature influence in different orthopaedic saw blades," *7 J. of Arthroplasty* 21 (1992).

43. Attached as Defendants' Exhibit 43 is a true and correct copy of Exhibit 14 from the deposition of Daniel Koenigshofer, ASHRAE Standard 52.2-2017, "Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size."

44. Attached as Defendants' Exhibit 44 are true and correct copies of Exhibits 27 and 28 from the deposition of Daniel Koenigshofer, LMS Technologies, Inc., Test Report-ASHRAE Test Standard 52.2 2012 dated May 10, 2016 and May 12, 2016.

45. Attached as Defendants' Exhibit 45 is a true and correct copy of Ranade M., "Adhesion and removal of fine particles on surfaces" *7 Aerosol Sci. and Technol.* 161 (1987).

46. Attached as Defendants' Exhibit 46 is a true and correct copy of Exhibit F from the expert report of Dr. Michael Mont.

47. Attached as Defendants' Exhibit 47 is a true and correct copy of Exhibit 5 from the deposition of Dr. William Jarvis, publication entitled Mangram A., et al., "Guideline for prevention of surgical site infection, 1999," *27 Am. J. of Infection Control* 97 (1999).

48. Attached as Defendants' Exhibit 48 is a true and correct copy of Exhibit 10 from the deposition of Daniel Koenigshofer.

49. Attached as Defendants' Exhibit 49 is a true and correct copy of excerpts from the deposition of Michael Buck.

50. Attached as Defendants' Exhibit 50 is a true and correct copy of Exhibit 4A from the deposition of Michael Buck.

51. Attached as Defendants' Exhibit 51 is a true and correct copy of Exhibit 10 from the deposition of Michael Buck.

52. Attached as Defendants' Exhibit 52 is a true and correct copy of Kowalski W., et al., "Airborne Respiratory Diseases and Mechanical Systems for Control of Microbes," 34 *Heating/Piping/Air Conditioning* (1998).

53. Attached as Defendants' Exhibit 53 is a true and correct copy of Landrin A., et al., "Monitoring air sampling in operating theatres: can particle counting replace microbiological sampling?" 61 *J. of Hospital Infection* 27 (2005).

54. Attached as Defendants' Exhibit 54 is a true and correct copy of Stocks G., et al., "Predicting bacterial populations based on airborne particulates: A study performed in nonlaminar flow operating rooms during joint arthroplasty surgery" 38 *Am. J. of Infection Control* 199 (2010).

55. Attached as Defendants' Exhibit 55 is a true and correct copy of Cristina M., et al., "Can particulate air sampling predict microbial load in operation theatres arthroplasty?" 7 *PLOS One* e52809 (2012).

56. Attached as Defendants' Exhibit 56 is a true and correct copy of Birgand, G., et al., "Air contamination for predicting wound contamination in clean surgery: A large multicenter study," 43 *Am. J. of Infection Control* 516 (2015).

57. Attached as Defendants' Exhibit 57 is a true and correct copy of excerpts from the deposition of Dr. Said Elghobashi.

58. Attached as Defendants' Exhibit 58 is a true and correct copy of Apte S., et al., "Stochastic modeling of atomizing spray in a complex swirl injector using large eddy simulation" 32 *Proceedings of the Combustion Institute* 2257 (2009).

59. Attached as Defendants' Exhibit 59 is a true and correct copy of Memarzadeh F., "Active warming systems to maintain perioperative normothermia in hip replacement surgery," 75 *J. of Hospital Infection* 332 (2010).

60. Attached as Defendants' Exhibit 60 is a true and correct copy of excerpts from the deposition of Dr. Yadin David.

61. Attached as Defendants' Exhibit 61 is a true and correct copy of Hall A., et al., "Bair Hugger Warmer Does not Increase Microbial Contamination in the Operating Room" PGA poster presentation (1991).

62. Attached as Defendants' Exhibit 62 is a true and correct copy of Zink R., et al., "Convective warming therapy does not increase the risk of wound contamination in the operating room" 76 *Anesthesia & Analgesia* 50 (1993).

63. Attached as Defendants' Exhibit 63 is a true and correct copy of Dirkes W., et al., "Convection warming in the operating room: Evaluation of bacterial spread with three filtration levels" 81 *Anesthesiology* 562 (1994).

64. Attached as Defendants' Exhibit 64 is a true and correct copy of Avidan M., et al., "Convection warmers: not just hot air," 52 *Anaesthesia* 1073 (1997).

65. Attached as Defendants' Exhibit 65 is a true and correct copy of Tumia N., et al., "Convection warmers - a possible source of contamination in laminar airflow operating theatres?" 52 *J. of Hospital Infection* 171 (2002).

66. Attached as Defendants' Exhibit 66 is a true and correct copy of Huang J., et al., "The Bair Hugger patient warming system in prolonged vascular surgery: an infection risk?" 7 *Critical Care* R13 (2003).

67. Attached as Defendants' Exhibit 67 is a true and correct copy of Moretti B., et al., "Active warming systems to maintain perioperative normothermia in hip replacement surgery: a therapeutic aid or vector of infection" 73 *J. of Hospital Infection* 58 (2009).

68. Attached as Defendants' Exhibit 68 is a true and correct copy of Occhipinti L., et al., "Evaluation of bacterial contamination on surgical drapes following use of the Bair Hugger forced air warming system" 54 *The Canadian Veterinary Journal* 1157 (2013).

69. Attached as Defendants' Exhibit 69 is a true and correct copy of Oguz R., et al., "Airborne bacterial contamination during orthopedic surgery: A randomized controlled pilot trial" 38 *J. of Clinical Anesthesia* 160 (2017).

70. Attached as Defendants' Exhibit 70 is a true and correct copy of Richard R., et al., "What orthopaedic operating room surfaces are contaminated with bioburden? A study using the ATP bioluminescence assay," 475 *Clinical Orthopaedics and Related Res.* 1819 (2017).

71. Attached as Defendants' Exhibit 71 is a true and correct copy of excerpts from the deposition of Dr. William Jarvis.

72. Attached as Defendants' Exhibit 72 is a true and correct copy of excerpts from the deposition of Dr. Richard Wenzel.

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Minneapolis, Minnesota, this 29th day of September, 2017.

s/Peter J. Goss

Peter J. Goss